

**YOUNG LIVES SCHOOL
SURVEY**

**VIETNAM
ROUND 1 – WAVE 1 (2011)**

**TEACHER QUESTIONNAIRE -
MATHS
(ENGLISH TRANSLATION)**

Time: 45 minutes

Please refer to accompanying justification documents for further details on the development and use of the Young Lives school survey questionnaires.

Young Lives School Survey Teacher

0.1	Insert YL School Site ID	_____
0.2	Insert Class ID	[5____]
0.3	Insert Teacher ID	[T5____]
0.4	If the instrument is not completed, state the reason why (leave it blank if completed)	01 = respondent is absent 02 = respondent refuses to participate
0.5	DATE OF INTERVIEW	___/___/____ dd /mm /

DATA HANDLERS

Fieldworker	Name:	Code: [____]
	Signature:	Date of check: ___/___/____ dd / mm / yyyy
Supervisor	Name:	Code: [____]
	Signature:	Date of check: ___/___/____ d d / m m / yyyy

Data entry clerk (first)	Name:	Code: [____]
	Signature:	Date of first data entry: ___/___/____ d d / m m / yyyy
Data entry clerk (second data entry)	Name:	Code: [____]
	Signature:	Date of second data entry: ___/___/____ —

1. The following question is taken from a test:

Calculate: $100 - 24 = \underline{\hspace{2cm}}$

A pupil gives the wrong answer as '86'.

Which is the most appropriate reason to explain his answer? (Put an X in one box)

1		Put an X in ONE box
A	He has learnt about subtraction	
B	He is confused between subtraction and addition	
C	He doesn't apply the 'borrowing' rule correctly	
D	He forgets to delete one '0' while doing the calculation	

2. Sometimes pupils make mistakes with multiplication. For example, in the following exercise, Ngoc makes a mistake:

$$\begin{array}{r} 13 \\ \times 15 \\ \hline 65 \\ + 13 \\ \hline 78 \end{array}$$

Which reason would best explain Ngoc's mistake? (Put an X in one box)

2		Put an X in ONE box
A	She is confused between addition and multiplication	
B	She doesn't understand anything about multiplication	
C	She forgets to write 13 one column to the left	
D	She forgets to write 65 one column to the left	

3. Phuong just learnt about subtraction with borrowing. When doing the following calculations, Phuong was right at first then she made mistakes. Please look at her answer:

$$\begin{array}{r} 38^7 4 \\ - 59 \\ \hline 325 \end{array}$$

$$\begin{array}{r} 19^8 7 \\ - 43 \\ \hline 144 \end{array}$$


$$\begin{array}{r} 17^6 6 \\ - 23 \\ \hline 143 \end{array}$$

Which reason would best explain Phuong's mistake? (Put an X in one box)


3		Put an X in ONE box
A	She was doing everything correctly at first and then forgot what she had learnt for the later calculations.	
B	When doing subtraction, she 'borrows' even when it if not needed	
C	She was careless but didn't make a systematic mistake	
D	She doesn't understand anything about subtraction with borrowing	

4. Please look at Duc's answers about fractions:

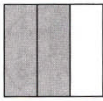
Question: What fraction represents the shaded area in each figure?

a) 

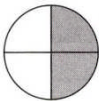
Write fraction. $\frac{1}{3}$

b) 

Write fraction. $\frac{1}{2}$

c) 

Write fraction. $\frac{2}{1}$

d) 

Write fraction $\frac{2}{2}$

Which reason best explains why Duc doesn't get the correct answer for some questions? (Put an X in one box)

4		Put an X in ONE box
A	He doesn't understand what a fraction is	
B	He counts the non-shaded areas and assume it is the denominator	
C	He thinks fractions only have even numbers as their denominator	
D	He switches the denominator and the numerator	

5. In a test, a pupil has to do the following question:

Find x if $517x = 151481$

His answer is 78315677


Which reason would best explain his wrong answer? (Put an X in one box)

5		Put an X in ONE box
A	He is confused between addition and division	
B	He doesn't understand algebra	
C	He forgets to divide by x	

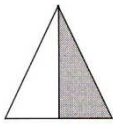
D	He is confused between multiplication and division	
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6. The following exercise is to test Thiep's understanding about fractions. Please have a look at his answer.

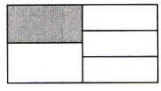
Write the fraction that represents the shaded area in each figure

a) 


Write fraction. $\frac{1}{4}$

b) 

Write fraction. $\frac{1}{2}$

c) 

Write fraction. $\frac{1}{5}$

d) 

Write fraction. $\frac{1}{4}$

Which reason would best explain why Thiep gets the wrong answer for some of the questions?
(Put an X in one box)

6		Put an X in ONE box
A	He counts the number of the areas and assume it is the denominator (regardless of how they are divided)	
B	He counts the number of the shaded areas incorrectly	
C	He doesn't know how to form a fraction that represents the shaded area	
D	He only knows to form a fraction for some certain shapes.	

7. When doing the multi-digit multiplication, a pupil does the following:

123
× 45
615
<u>492</u>
1107

When the teacher explains that the second partial product of 492 needs to be written one column to the left (or write an extra 0 to the right of the second partial product), the pupil gets confused.

Which of the following would best explain this to the pupil? (Put an X in one box)

7		Put an X in ONE box
A	Emphasise that adding 0 to any numbers doesn't change the value of that number	
B	Explain that the 0 simply serves as a placeholder so that all digits are put in the correct column.	
C	Explain that the multiplication whose result is the second partial product is the multiplication of 123 with 40, not 4.	
D	Explain that when doing a multiplication with double digit numbers, we need to add a zero to the product	

8. When doing division, Tuan was doing well but he started to have a problem recently. In the following exercises, some were done correctly, some were not.

(i)	(ii)	(iii)	(iv)
$\begin{array}{r l} 456 & 7 \\ 42 & \underline{\hspace{1cm}} \\ \hline 36 & \\ 35 & \\ \hline 1 & \end{array}$	$\begin{array}{r l} 5426 & 6 \\ 54 & \underline{\hspace{1cm}} \\ \hline 26 & \\ 24 & \\ \hline 2 & \end{array}$	$\begin{array}{r l} 4860 & 8 \\ 48 & \underline{\hspace{1cm}} \\ \hline 60 & \\ 56 & \\ \hline 4 & \end{array}$	$\begin{array}{r l} 4035 & 8 \\ 40 & \underline{\hspace{1cm}} \\ \hline 35 & \\ 32 & \\ \hline 3 & \end{array}$

Which reason would best explain why Tuan got some of the questions wrong? (Put an X in one box)

8		Put an X in ONE box
A	He was just careless but didn't make any systematic mistakes.	
B	He doesn't know how to divide by a single digit number	
C	He forgets to write 0 in the quotient when needed	

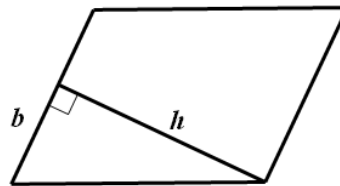
D	He is not sure how to do divisions	
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9. Mr Xuan teaches the pupils how to calculate the area of a parallelogram with the formula $S=b \times h$. He asks the pupils to write the letter b next to the base and h for the height of the parallelogram. Below is how four pupils do it.

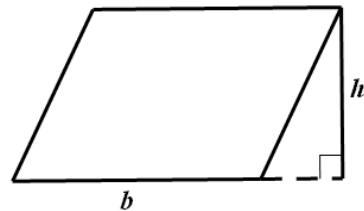
Which pupil would get the wrong answer based on how he/she labels the diagram? (Put an X in one box)

9		Put an X in ONE box
A	Son	
B	Hà	
C	Hùng	
D	Lan	

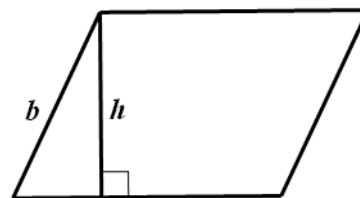
Son



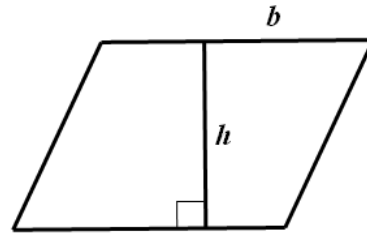
Hà



Hùng



Lan



10 and 11. Two pupils get the following question in a test:

Fill the blank with a number

19, 16, ____, 10

Below are the wrong answers of those two pupils.

The first pupil gives an answer of '15'.

Which reason would best explain why he gets the wrong answer? (Put an X in one box)

10		Put an X in ONE box
A	He adds 9 to 6 to get 15 and write 15 into the blank	
B	He doesn't recognize this is a descending sequence	
C	He recognizes this is a descending sequence and immediately thinks the number following 16 would be 15	
D	He makes a wild guess	

The second pupil gives an answer of 35.

Which reason would best explain why he gets the wrong answer? (Put an X in one box)

11		Put an X in ONE box
A	He makes a wild guess.	
B	He is confused between subtraction and division	
C	He thinks this is a descending sequence	
D	He thinks the rule is adding the two preceding numbers to get the next one.	

12. A pupil is asked to solve the following problem:

*What is the original price of a TV, if its price is 2 million dong **after** a 20% discount?*

Chung gives a wrong answer of **1,6** million dong.

Which reason would best explain why Chung gets a wrong result? (Put an X in one box)

12		Put an X in ONE box
A	He calculates 80% of 2 million to get the result	
B	He doesn't understand anything about percentage	
C	He deducts the discount instead of adding it	
D	He doesn't understand the meaning of the word 'discount'	

13. For the same exercise, Hang gives an answer of **2,4** million dong.

Which reason would best explain why Hang gets the wrong result? (Put an X in one box)

13		Put an X in ONE box
A	She thinks 2,4 million dong is 80% of 2 million dong.	
B	She doesn't understand anything about percentage.	
C	She calculates 20% of 2 million then adds that to 2 million to get the original price.	
D	She thinks the discount is 25%	

14. A pupil is given the following exercise:

A coach goes from Da Nang to Hue over a distance of 80km, with a speed of 120km/h and breaks for 45 minutes on the way. A train goes nonstop from Da Nang to Hue with a speed of 40km/h. Which one would arrive first?

Duc answers that the train will arrive first. He writes:

Coach: $120:80 = 1,5$ (hours)
 $1,5$ hours + 45 mins = 2 hours 15 mins

Train: $40:80 = 0,5$ (hours)

Which reason would best explain why Duc gets the wrong answer? (Put an X in one box)

14		Put an X in ONE box
A	He calculates the time taken correctly but arrives at the wrong conclusion	
B	He doesn't know anything about division	
C	He doesn't know how to calculate the time taken of a mechanic movement.	
D	He adds the time taken for a break instead of subtract it	

15. A pupil is given the following exercise:

Thang is painting the walls in his room. His room is 2x4 m large and 5m high. He can paint 2m² per hour and can work 8 hours per day. How many days would it take for Thang to complete the work?

A pupil says that Thang will complete in 3 days. He writes:

$2 \times 4 \times 5 = 40$ (m²)
 $40 : 2 = 20$ (hours)
 $20 : 8$ hours = 2,5 (days)

Which reason would best explain why he has the wrong answer? (Put an X in one box)

15		Put an X in ONE box
A	He only calculates the area of two walls instead of four	
B	He doesn't know the formula for calculating the volume	
C	The order of the steps is wrong	
D	He is confused between areas and volumes	

16. The following question is taken from a test:

Fill the blank with an appropriate number:

1, 2, 4, __, 11, 16

A pupil gives an answer of '8'.

Which reason would best explain why he gets the wrong answer? (Put an X in one box)

16		Put an X in ONE box
A	He finds a rule that is applicable for the preceding numbers but not for the numbers following the blank	
B	He chooses a random number between 4 and 11 without identifying a rule.	
C	He thinks the rule is to add 4 to the preceding number	
D	He doesn't understand anything about division.	

17. A pupil is asked to write down three equivalent fractions. He writes:

$$\frac{2}{4}, \frac{4}{6}, \frac{6}{8}$$

Which reason would best explain why he is wrong? (Put an X in one box)

17		Put an X in ONE box
A	He doesn't realise that equivalent fractions must have the same denominator	
B	He thinks adding the same number to the numerator and denominator would produce an equivalent fraction	
C	He doesn't understand that equivalent fractions must have the same numerator	
D	He thinks that equivalent fractions always have the same simplified form	

18. A pupil is given the following exercise:

$$\text{Find } x \text{ if } 12x - 10 = 6x + 32$$

He gets $x = 1\frac{2}{9}$

Which reason would best explain his wrong answer? (Put an X in one box)

18		Put an X in ONE box
A	He subtracts the two x values instead of adding them together	
B	He adds the two x values together instead of subtracting one from the other	
C	He doesn't know what to do when numbers are replaced by letters	
D	He forgets to change the sign of values when grouping them in a new equation	

19. A pupil is given the following problem:

Luan and Tam take mangoes out of a basket. Luan takes one third of the mangoes. Tam takes one sixth of the remaining mangoes. What fraction of the original basket of mangoes is left?

He answers $\frac{1}{2}$

Which reason would best explain his wrong answer? (Put an X in one box)

19		Put an X in ONE box
A	He makes a mistake when dividing by a fraction	
B	He is confused between those mangoes that get removed and those that are left	
C	He miscalculates the mangoes taken by Luan	
D	He miscalculates the mangoes taken by Tam	

20. A pupil is given the following exercise:

A half-full bath takes 10 minutes to empty when the plug is removed. The bath empties water at a rate of 150 litres per hour. How many litres of water are needed to fill the bath?

He answers 75 litres.

Which reason would best explain his wrong answer? (Put an X in one box)

20		Put an X in ONE box
A	He calculates the water needed to fill only half of the bath, forgetting to multiply by two to get the water required to fill the whole bath	
B	He multiplies by the rate of water emptying from the bath instead of dividing	
C	He does not know how to attempt this problem and selects numbers from the problem and guesses the correct calculation	
D	He does not understand that litres are a measure of volume	

END OF QUESTIONNAIRE